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Plaintiffs are the creator of smart home technology. (Doc. 37 at ¶ 16.) According to Plaintiffs, its inventions have allowed consumers to monitor and control home security and home automation systems remotely. “More specifically, the inventions claim systems and methods for remote communication with home security and home automation systems through interaction with an internet-accessible device (for example, a server running a website) as opposed to the cumbersome automated systems provided via telephone found in the prior art.” (Doc. 58 at 1.)

II. APPLICABLE LAW

A. Claim Construction

Claim construction is a matter of law, and thus the task of determining the proper construction of the disputed terms lies with the Court. *Markman*, 517 U.S. at 385. “It is a bedrock principle of patent law that the claims of a patent define the invention to which the patentee is entitled the right to exclude.” *Innova/Pure Water, Inc. v. Safari Water Filtration Sys., Inc.*, 381 F.3d 1111, 1115 (Fed. Cir. 2004).

It is well established that “the words of a claim ‘are generally given their ordinary and customary meaning,’” which is defined as the “meaning that the term would have to a person of ordinary skill in the art in question at the time of the invention.” *Phillips v. AWH Corp.*, 415 F.3d 1303, 1312-13 (Fed. Cir. 2005) (en banc) (quoting *Vitronics Corp. v. Conceptronic, Inc.*, 90 F.3d 1576, 1582 (Fed. Cir. 1996)). A district court is not obligated to construe terms with ordinary meanings, lest trial courts be inundated with requests to parse the meaning of every word in the asserted claims. *O2 Micro Int’l Ltd. v. Beyond Innovation Tech. Co.*, 521 F.3d 1351, 1360 (Fed. Cir. 2008); *see also Mentor H/S, Inc. v. Med. Device Alliance, Inc.*, 244 F.3d 1365, 1380 (Fed. Cir. 2001) (finding no error in the lower court’s refusal to construe “irrigating” and “frictional heat”).

There are only two exceptions to the ordinary meaning rule: “1) when a patentee sets out a definition and acts as his own lexicographer, or 2) when the patentee disavows the full scope of a claim term either in the specification or during prosecution.” *Thorner v. Sony Computer Ent. Am. LLC*, 669 F.3d 1362, 1365 (Fed. Cir. 2012).

To determine the meaning of claims, courts begin by considering the intrinsic evidence, “i.e., the patent itself, including the claims, the specification and, if in evidence, the prosecution history.” *Vitronics Corp.*, 90 F.3d at 1582. The claims themselves can provide substantial guidance as to the meaning of terms. *Phillips*, 415 F.3d at 1314. The context in which a term is used in the asserted claim can be instructive, and “other claims of the patent in question, both asserted and unasserted, can also be valuable sources of enlightenment as to the meaning of a claim term.” *Id.*

Claims, however, do not stand alone and “must be read in view of the specification, of which they are a part.” *Markman v. Westview Instruments, Inc.*, 52 F.3d 967, 979 (Fed. Cir. 1995), *aff’d*, 517 U.S. 370 (1996). The specification, which describes and illustrates the invention in detail, “is always highly relevant to the claim construction analysis. Usually, it is dispositive; it is the single best guide to the meaning of a disputed term.” *Vitronics*, 90 F.3d at 1582. Notably, “although the specification often describes very specific embodiments of the invention, [the Federal Circuit has] repeatedly warned against confining the claims to those embodiments.” *Phillips*, 415 F.3d at 1323.

Courts may also consider the prosecution history, which provides evidence of how the Patent and Trademark Office (the “PTO”) and the inventor understood the patent. *Id.* at 1317. However, “because the prosecution history represents an ongoing negotiation between the PTO and the applicant, rather than the final product of that negotiation, it often lacks the clarity of the specification and thus is less useful for claim construction purposes.” *Id.* Still, a “patentee may

limit the meaning of a claim term by making a clear and unmistakable disavowal of scope during prosecution.” *Purdue Pharma L.P. v. Endo Pharms., Inc.*, 438 F.3d 1123, 1136 (Fed. Cir. 2006); *see Cordis Corp. v. Boston Sci. Corp.*, 561 F.3d 1319, 1329 (Fed. Cir. 2009). A patentee could do so by, for instance, clearly characterizing the invention in a way to avoid prior art. *See, e.g., Microsoft Corp. v. Multi-Tech Sys., Inc.*, 357 F.3d 1340, 1349 (Fed. Cir. 2004) (limiting the term “transmitting” to require direct transmission over a telephone line because the patentee was found to have disclaimed transmission over a packet-switched network by stating during prosecution that the invention transmits over a standard telephone line). However, “[w]here an applicant’s statements are amenable to multiple reasonable interpretations, they cannot be deemed clear and unmistakable.” *3M Innovative Props. Co. v. Tredegar Corp.*, 725 F.3d 1315, 1326 (Fed. Cir. 2013).

In most circumstances, analysis of the intrinsic evidence alone will resolve claim construction disputes. *Vitronics*, 90 F.3d at 1583. However, if the intrinsic evidence does not resolve ambiguities, a court may also consider extrinsic evidence such as expert witness testimony, dictionary definitions, and legal treatises. *Id.* at 1585. While extrinsic evidence can shed useful light on the relevant art—and thus better allow a court to place itself in the shoes of a person of ordinary skill in the art—the ‘intrinsic evidence is the most significant source of the legally operative meaning of disputed claim language.’” *Vanderlande Indus. Nederland BV v. I.T.C.*, 366 F.3d 1311, 1318 (Fed. Cir. 2004) (quoting *Vitronics*, 90 F.3d at 1582).

B. Means-Plus-Function Claims

A claim may be found invalid for indefiniteness if it is found to be a means-plus-function claim that insufficiently connotes structure under 35 U.S.C. § 112(f). This Section provides that “[a]n element in a claim for a combination may be expressed as a means or step for performing a specified function without the recital of structure, material, or acts in support thereof, and such

claim shall be construed to cover the corresponding structure, material, or acts described in the specification and equivalents thereof.” 35 U.S.C. § 112(f). Such “means-plus-function” claims allow a patentee to describe an element of the invention by the function it serves, rather than describing the item or element to be used—that is, what it does rather than what it is. *Warner-Jenkins Co. v. Hilton Davis Chem. Co.*, 520 U.S. 17, 27 (1997).

If a court determines that the means-plus-function analysis under § 112(f) governs, the court applies a two-step process: it must decide what the claimed function is, and then determine whether a structure corresponding to that function is disclosed in the specification. *Welker Bearing Co. v. PHD, Inc.*, 550 F.3d 1090, 1097 (Fed. Cir. 2008). If the patent “does not contain an adequate disclosure of the structure that corresponds to the claimed function, the patentee will have ‘failed to particularly point out and distinctly claim the invention as required by the second paragraph of section 112.’” *Blackboard, Inc. v. Desire2Learn, Inc.*, 574 F.3d 1371, 1382 (Fed. Cir. 2009) (quoting *In re Donaldson Co.*, 16 F.3d 1189, 1195 (Fed.Cir.1994) (en banc)). Such a failure results in invalidity for indefiniteness. *Id.*

In determining whether a claim is drafted in means-plus-function format, and thus whether § 112(f) applies, courts have focused on the patent’s use of the word “means.” *Williamson v. Citrix Online, LLC*, 792 F.3d 1339, 1348 (Fed. Cir. 2015). If the claim does not contain the word “means,” courts apply a “rebuttable presumption that the term conveys sufficiently definite structure and is not subject to 112[(f)].” *MTD Prods. Inc. v. Iancu*, 933 F.3d 1336, 1341 (Fed. Cir. 2019). This presumption can be rebutted by demonstrating “that the claim term fails to recite sufficiently definite structure or else recites function without reciting sufficient structure for performing that function.” *Id.* (quoting *Williamson*, 792 F.3d at 1348). One way to demonstrate that a claim limitation fails to recite sufficiently definite structure is to show that the claim

limitation uses a “nonce word that can operate as a substitute for ‘means’ in the context of § 112[f].” *Williamson*, 792 F.3d at 1350. Courts have held that nonce words include terms like “module,” “mechanism,” “element,” and “device.” *Id.* Thus, while the presence or absence of “means” is informative, the “essential inquiry is . . . whether the words of the claim are understood by persons of ordinary skill in the art to have a sufficiently definite meaning as the name for structure.” *Id.* at 1348. “The ultimate question is whether ‘the claim language, read in light of the specification, recites sufficiently definite structure to avoid § 112, ¶ 6.’” *MTD Prod. Inc.*, 933 F.3d at 1342 (quoting *Media Rights Techs. Inc. v. Capital One Fin. Corp.*, 800 F.3d 1366, 1372 (Fed. Cir. 2015)).

III. CONSTRUCTION OF AGREED TERMS

The parties have agreed that the claim term “extranet” should be construed as a “private network that uses the Internet protocols and the public telecommunication system to securely share information and extend a company’s intranet to user’s [sic] out the company, and requires firewall server management, the issuance and use of digital certificates or similar means of user authentication, encryption of messages, and the use of virtual private networks (VPNs) that tunnel through the public network.” (Doc. 64 at 5.) This term accordingly does not require the Court’s construction.

IV. CONSTRUCTION OF DISPUTED TERMS

There are eight disputed terms in the patents-in-suit. Plaintiffs propose that “each of these terms need no construction and should have their plain and ordinary meaning,” (Doc. 58 at 1), whereas Defendants request that the Court “construe certain claim limitations where a construction will clarify the meaning for the jury,” (Doc. 64 at 1).

A. Interconnect on-demand/communicate on-demand

Term	Patent/Claims	Plaintiffs’ Construction	Defendants’ Construction	Court’s Construction
“interconnect on-demand”	’526 Pat: Cl. 1, 58, 59, 62	No construction necessary / plain and ordinary meaning	“initiate a communication connection from a normally unconnected state in response to a specific user action”	No construction necessary / plain and ordinary meaning
“communicate on-demand”	’097 Pat: Cl. 1, 4, 19, 23			

Plaintiffs argue that there is no reason to deviate from the general rule of applying the plain and ordinary meaning because “[i]nterconnecting and communicating on-demand are words well understood in plain English” and the “surrounding claim language makes clear that the terms mean just what they say: a processor must connect or communicate on-demand with a communication gateway.” (Doc. 58 at 2-3.) Defendants argue that the intrinsic record supports its proposed construction of “on-demand interconnection or communication” as “as being initiated from a normally unconnected state in response to a specific user action (such as accessing the URL).” (Doc. 64 at 6.) For instance, the specifications state that “[t]he user premises network 26 is normally in an unconnected state in relation to the provider network 17” and it is the “[s]pecific actions on the part of the remote user, or their authorised agents, [that] connect the user premises network to the provider network, thus allowing monitoring and control operations to proceed.” ‘526 Patent at 7:25-30. Defendants also claim that an “on-demand” interconnection / communication must be in response to a specific user action because any “other construction would capture the prior art mechanism that the inventor criticized.” (Doc. 64 at 6.)

Plaintiffs argue that Defendants’ construction would “improperly read[] limitations from the preferred embodiments into the claims.” (Doc. 58 at 3.) Plaintiffs point to language that they argue shows that the patents contemplate that the connection gateway could initiate a connection

to the communication server automatically, with no user input or action. *See* ‘526 Patent at 4:6-7 (“ . . . the connection gateway, can raise a connection to a communications server, and send an indication to the user of the home security system of the receipt of a recorded data”); *Id.* at 11:37-41 (“In response to an alarm condition, the gateway 22 uses pre-programmed connection parameters to initiate a connection through the telecommunications network 24 to a preferred communications server 21 on the provider network 17.”).

Defendants also argue that, in the context of Plaintiffs’ claimed invention, a “new communication session is created as responsive ‘to user-input of a Uniform Resource Location (URL).’” (Doc. 64 at 7) (citing ‘526 Patent at Cls. 1, 58, 59, 62; ‘097 Patent at Cls. 1, 19, 23.) Plaintiffs respond that Defendants are conflating “on-demand” with user-input of a URL: According to Plaintiffs, “a gateway can have an on-demand function as provided by a connection gateway, can raise a connection to a communications server, and send an indication to the user of the home security system of the receipt of a recorded data.” (Doc. 66 at 2) (citing ‘526 Patent at 4:1-19.) Moreover, Plaintiffs state that “a communication ‘session’ is not the same as connection because a session is created when the user logs in, but a ‘connection’ may already exist (e.g., created from gateway to cloud in response to an event).” (*Id.*)

Lastly, Plaintiffs contend that the remaining elements on Defendants’ proposal are confusing or redundant. For instance, they argue that a “communication connection” is confusing because “in the context of the claims, a ‘communications server’ is what interconnects on-demand with the ‘connection gateways.’” (Doc. 58 at 4.)

In *Portus v. Ecobee*, C.A. No. 6:20-cv-00694-ADA (W.D. Tex July 23, 2021), the court analyzed “interconnect/communicate on-demand” in the same patents asserted here and determined that that the terms required no construction and plain and ordinary meaning applied.

(Doc. 65-1 at 4-6.) The court in *Ecobee* found that the embodiment at 4:1-19 of the ‘526 patent “does contemplate a scenario where the connection is made without any user action” and that the “remaining components of Defendant’s construction are unnecessary or redundant.” (*Id.* at 5.)

The Court agrees with Plaintiffs that Defendants have not established that these terms do not have a well-understood meaning to persons of ordinary skill in the art (“POSITA”). *See Phillips*, 415 F.3d at 1312–13. Moreover, Defendants’ construction requiring “an unconnected state” and “specific user action” reads limitations from the preferred embodiment into the claims, and Defendants have not shown that “specific user action” is needed for every on-demand communication between the communications server and connection gateway. Accordingly, the Court finds that Defendants’ proposed construction is overly narrow and construes the terms “interconnect on-demand” and “communicate on-demand” by their plain and ordinary meaning.

B. Connection Gateway(s)

Term	Patent/Claims	Plaintiffs’ Construction	Defendants’ Construction	Court’s Construction
“connection gateway”	‘526 Pat: Cl. 1, 2, 4, 13-15, 19, 22, 23, 25, 26, 49, 58, 59, 62, 63 ‘097 Pat: Cl. 1, 4, 6, 13, 14, 19, 23	No construction necessary / plain and ordinary meaning	“a computer that serves as the access point to negotiate and establish a connection from an external network on the Internet to the user premises network, and includes a web server to provide information to the external network through web pages”	No construction necessary / plain and ordinary meaning

Regarding the first clause in Defendants' proposed construction, Defendants point to language in the specification that explains that the "gateway and the connection server negotiate connection parameters and establish a network connection between the user premises network and the provider network." '526 Patent at 8:14-16. Defendants also point to the prosecution history, during which the patentee argued to PTO that the connection "gateway 22 is shown in figure 1 to be the access point from the VPN 17 to the premises network 26" and is "required for the connection thereto across the internet." (Doc. 65-2 at 18, 19.) Plaintiffs' challenge to this first clause is that "directly imports an embodiment from the specification." (Doc. 66 at 3.)

Plaintiffs take specific issue with the second clause in Defendants' construction of the term because "nowhere does the specification say that the connection gateway must utilize a web server and nowhere does it say that such information from the web server must be provided via web pages." (Doc. 58 at 5.) Defendants cite the specification, which states that the gateway "includes a HTTP server 30 which runs as an application. The gateway web server 30 then serves information in relation to user premises appliances through appropriate Web pages to the user." '526 patent at 8:24-27. Defendants also argue that during prosecution of the '526 patent, the patentee took the position that the "described manner by which the gateway provides the information in response to the request from the communications server is via webpages." (Doc. 65-2 at 20.)

Plaintiffs note that Claim 1 of the '526 Patent does not require a web server, while Claims 58, 59, and 62 include web server limitations. (Doc. 58 at 6.) Thus, Plaintiffs argue, "[t]hese limitations would be redundant if the connection gateway had to include a web server in every sentence." (*Id.*) In *Portus v. Ecobee*, the court agreed with Plaintiffs: "[I]f the claim term's construction included 'web server,' the mention of such servers in some claims would be redundant or inconsistent with the claims absent the term." (Doc. 65-1 at 11.) However, Defendants respond

that the “web-server limitations in claims 58, 59 and 62 refer to functionality of a different component (i.e., the ‘communications server’), not the ‘connection gateway.’” (Doc. 64 at 10.) Claims 58, 59, and 62 state: “responsive to user-input . . . one of said at least one **communications server subsequently** . . . creates a new communications session between said communications session and said one of said connection gateways . . . **by which communications session the network located external to said user premises** . . . uses a web server to serve to the Internet browser information from the connection gateway of the determined user premises network.” ’526 Patent at Cls. 58, 59, and 62 (emphasis added). The Court agrees with Defendants that the “web server” requirement in these claims refers to the bolded portions of the claim language, not the connection gateway.

However, other specification language does indicate the optionality of the web server for the connection gateway. Specifically, the specification (which, according to Plaintiffs, refers to a connection gateway as a user premises gateway) describes a user premises gateway as “including a web server running on the user premises gateway.” ’526 Patent at 7:3. The Court concurs with Plaintiffs that “[i]f a connection gateway necessarily includes a web server, by definition, it would have been unnecessary for Portus to have described the connection gateway in this fashion.” (Doc. 58 at 6.)

Lastly, Plaintiffs argue that the specification contemplates more than communication with a web server exclusively through web pages and point to this language in the specification as support: “Further modifications and applications are possible. For example, the connection gateways could form nodes of a distributed computing environment that may be allocated by the extranet on a demand basis to facilitate supercomputer type calculations.” ’526 Patent at 12:3-7.

The Court agrees that Defendants’ proposed construction would improperly import limitations from the specification. Moreover, the Court does not find that the prosecution history evidence advanced by Defendants establishes that “the patentee unequivocally and unambiguously disavow[ed] a certain meaning to obtain a patent.” *Biogen Idec, Inc. v. GlaxoSmithKline LLC*, 713 F.3d 1090, 1095 (Fed. Cir. 2013). The patentee did not clearly and unmistakably narrow the meaning of “connection gateway” to necessarily include a web server to provide information through web pages. Thus, the patentee’s statements in the prosecution history are not “sufficient to overcome the ‘heavy presumption’ that the term carries its full ordinary and customary meaning advanced by” Plaintiffs. *Id.* For these reasons, the Court construes the term “connection gateway” according to its plain and ordinary meaning.

C. Control Terminal

Term	Patent/Claims	Plaintiffs’ Construction	Defendants’ Construction	Court’s Construction
“control terminal”	’526 Pat: Cl. 13-19	No construction necessary / plain and ordinary meaning	“a device separate from the [access browser device], incorporating a display, an input mechanism, and running an [access browser], for monitoring and controlling devices and appliances”	No construction necessary / plain and ordinary meaning

Defendants’ construction relies on the following specification language: “The system can also include a control terminal interconnected to the connection gateway, the control terminal comprising a wall mounted flat panel display incorporating a touch screen and running web browser.” ’526 Patent at 4:24-27. “A local user **can** monitor and control devices and appliances in

the user premises through a control terminal incorporating a display and an input mechanism and running a web browser.” ‘526 Patent at 10:41-44 (emphasis added). Plaintiffs respond that “[t]his permissive language of what a user ‘can’ do is far from a disavowal to limit claim scope that requires what a control terminal ‘must’ do.” (Doc. 66 at 5.)

Moreover, Plaintiffs point to Claims 19 and 20 to argue that Defendants’ proposed construction “injects numerous limitations that [sic] from a disclosed embodiment set forth in the specification.” (Doc. 58 at 7.) “Claim 19 states that the control terminal is provided via a personal computer, and Claim 20 states the control terminal is provided via a set top box. . . . While both a PC and a set top box may be connected to external displays, there is no requirement that they have one, and Defendants’ construction would impart the limitation that the control terminal itself incorporate a display.” (*Id.* at 8.) According to Plaintiffs, rewriting the claims as Defendants propose “would eliminate fundamental differences in claim scope between Claims 13, 19, and 20, ignoring the principle of claim differentiation and its presumption that each claim in a patent has a different scope.” (*Id.*) As additional evidence that a control terminal does not require a display, Plaintiffs state that the “control terminal may operate as a universal premises remote control, which need not have a display or the need to run a web browser.” (*Id.*)

Plaintiffs also reject the requirement in Defendants’ construction that the control terminal be “separate from the access browser device.” Plaintiffs argue that “nothing in the specification restricts the control terminal from being the access browser device. In fact, a number of the potential functions of the control terminal show the opposite where the control terminal is the access browser device.” (Doc. 66 at 5.); *see, e.g.*, ‘526 Patent at 4:40-43 (“Ideally, the control terminal integrates a digital camera, microphone and speaker, and H323 protocol software, thus allowing the control terminal to be used as a videophone, through a standard browser interface.”).

The court in *Ecobee*, analyzing whether the control terminal must contain a display and run a web browser, concluded that “each claim that mentions the term ‘control terminal’ has sufficient context to allow a person of skill in the art to define it. The intrinsic patent record does not suggest that the patentee disavowed or acted as its own lexicographer as it related to ‘control terminal’ or intended to add the limitations that are present” in Defendants’ proposed construction. (Doc. 65-1 at 12.) The Court agrees with this conclusion. Therefore, the Court applies the plain and ordinary meaning rule to this term.

D. Access Browser/Access Browser Module

Term	Patent/Claims	Plaintiffs’ Construction	Defendants’ Construction	Court’s Construction
“Access Browser” “Access Browser Module”	’526 Pat: Cl. 57 ’097 Pat: Cl. 1, 2, 16, 23	No construction necessary / plain and ordinary meaning	“a standard web browser that serves web pages specified by user-input” Construed pursuant to 35 U.S.C. § 112(f) Structure: a standard web browser Function: serve web pages specified by user-input	No construction necessary / plain and ordinary meaning

Defendants argue that the terms “access browser” and “access browser module” have the same meaning and should be construed pursuant to a means-plus-function analysis under 35 U.S.C.

§ 112(f) “because the term does not have any definite structural meaning in the art.” (Doc. 64 at 13.) Alternatively, if § 112(f) does not apply, Defendants ask that “access browser” and “access browser module” “be construed according to the specification as a standard web browser that serves web pages specified by user-input.” (Doc. 64 at 15.)

Plaintiffs contend that “Defendants have not demonstrated that these terms do not have a well understood meaning to persons of ordinary skill in the art, nor that anything in the intrinsic record justifies injecting the ‘a standard web browser that serves web pages specified by user-input’ limitation.” (Doc. 58 at 9.) Moreover, Plaintiffs maintain that the patentee “specifically chose the broader term ‘access browser’ over a ‘web browser.’” (*Id.*) Web browser is a separately described structure in the specification, and Plaintiffs argue that there is “no intrinsic support for limiting the construction of an access browser to a disclosed embodiment of a ‘web browser.’” (*Id.* at 10.); *see* ’526 Patent at 6:16-19 (describing web browser interface as running “on the Internet access device 15 and that allows the user to access, through queries over the WWW, HTML pages from HTTP servers corresponding to associated URLs”).

Plaintiffs point to the doctrine of claim differentiation, which provides that no two claims in the same patent should be interpreted to cover the same thing. *See LizardTech, Inc. v. Earth Res. Mapping, Inc.*, 424 F.3d 1336, 1344 (Fed. Cir. 2005). In Patent ‘097, Claim 2, which is a dependent claim, states “wherein the access browser module is an Internet browser,” while Claim 16, also a dependent claim, states “wherein the information is presented as a webpage by the access browser module.” ‘097 Patent at 13:46-47 and 14:29-30. Plaintiffs assert that “[t]o re-write the claims as Defendants proposed would eliminate the fundamental differences in claim scope between ‘097 Patent’s Claims 1, 2, and 16, ignoring the doctrine and its presumption that each claim in a patent has a different scope.” (Doc. 66 at 7); *see also Shell Glob. Sols. (US) Inc. v. RMS Eng’g, Inc.*, 782

F. Supp. 2d 317, 347 (S.D. Tex. 2011) (“[A]ccording to the doctrine of claim differentiation, limitations in the dependent claims give rise to the presumption that the broader independent claims are not confined to that range.”). The Court agrees with Plaintiffs that to construe “access browser” as “a standard web browser that serves web pages specified by user-input” would violate the doctrine of claim differentiation as the patentee chose specific and different terms.

Plaintiffs also argue that injecting “specified by user-input” would contradict the specification’s Abstract and first paragraph of the Summary of the Invention, which suggest that the browser does not require specified user input but rather can access a predetermined address on its own. (Doc. 58 at 11); *see* ’526 Patent Abstract and 2:42-43 (“wherein upon accessing a predetermined address by the Internet browser”). Plaintiffs point to ’526 Patent Claims 1, 57, 58, and 62, which all provide that the “browser accesses a predetermined address.” (Doc. 58 at 11.)

Turning to the means-plus-function analysis under 35 U.S.C. § 112(f), Plaintiffs contend that § 112(f) should not be invoked. Defendants, by contrast, analogize “access browser module” to the phrase “distributed learning control module,” which the Federal Circuit found to be a means-plus-function claim governed by § 112(f) in *Williamson v. Citrix Online, LLC*, 792 F.3d 1339 (Fed. Cir. 2015). In *Williamson*, the term at issue was part of a larger limitation that read: “distributed learning control module for receiving communications transmitted between the presenter and the audience member computer systems and for relaying the communications to an intended receiving computer system and for coordinating the operation of the streaming data module.” 792 F.3d at 1350. First, the Federal Circuit held that this phrase was in a format consistent with traditional means-plus-function claim limitations: “It replaces the term ‘means’ with the term ‘module’ and recites three functions performed by the ‘distributed learning control module.’” *Id.* at 1350. In comparison, Plaintiffs note that “access browser module” is not “followed by the word ‘for’ and

the adjacent claim terms are not simply the function of the access browser module. Instead the access browser module is used in the claims as a structure.” (Doc. 66 at 8.) Defendants dispute this characterization and argue that the term is structured as a means-plus-function claim by pointing to claim language that says an “access browser module . . . configured to communicate on-demand with the connection gateway.” ‘097 Patent at 12:49-51. However, the Court disagrees with Defendants’ framing. The full clause from which Defendants cite states: “the second hardware processing circuitry is external to the user premises, is accessible via the access browser module, and is configured to communicate on-demand with the connection gateway.” ‘097 Patent at 12:48-51. While Defendants posit that “configured to communicate on-demand with the connection gateway” refers to the function of “access browser module,” the Court reads it as referring to “the second hardware processing circuitry.”

In *Williamson*, the Federal Circuit also found that “module” in the context of “distributed learning control module” functioned as a nonce word and that the prefix “distributed learning control” did not impart structure into the term “module.” 792 F.3d at 1351. In contrast, Plaintiffs argue that here, “the term access *browser* is sufficiently definite structure, and even Defendants propose a construction which the ‘browser’ as the proposed structure.” (Doc. 66 at 8.) Defendants argue that “access browser” / “access browser module” would not have been understood by a person of ordinary skill in the art to have a sufficiently definite meaning as the name for a structure. (Doc. 64 at 13-14.) The Court agrees with Plaintiffs that “[t]he phrase ‘access browser’ preceding ‘module’ provides a person of ordinary skill the necessary structure to understand the claim term.” (Doc. 58 at 12.)

The Court finds that: 1) “access browser module” does not contain a means-plus-function limitation necessitating construction under 112(f), and 2) if § 112(f) does not apply, Defendants’

proposed construction would improperly limit the construction of an “access browser” to a “web browser,” which is a separately described structure in the specification. Accordingly, the Court’s construction of these terms is their plain and ordinary meaning.

E. Access Browser Device

Term	Patent/Claims	Plaintiffs’ Construction	Defendants’ Construction	Court’s Construction
“access browser device”	‘526 Pat: Cl. 57	No construction necessary / plain and ordinary meaning	“device having a display, an input mechanism, and running an [access browser]”	No construction necessary / plain and ordinary meaning

The specific claim term “access browser device” is only found in Claim 57 of the ‘526 Patent and not the specification. *See* ‘526 Patent at 17:5. Plaintiffs contend that this term has a well understood meaning to persons in the ordinary skill in the art. (Doc. 58 at 12.) Plaintiffs also point out that the phrase “running an access browser,” which Defendants include in this proposed construction, is already a part of the adjacent claim language and does not need to be duplicated. *See* ‘526 Patent at 17:4-6 (a system for remote access of user premises networks “. . . include[es] a hardware user access browser device that comprises a processor running an access browser.”).

Plaintiffs argue that there is nothing in the intrinsic record that justifies the “having a display, an input mechanism” limitation that Defendants propose. Defendants claim that the only description of an “access browser device” in the specifications is a description of an “Internet access device,” which “can be a computer, WebPhone, Portable digital assistant, or mobile phone or any other device with web browsing capability.” ‘526 Patent at 3:49-52. Each of these devices has a display and an input mechanism and runs an access browser. However, Plaintiffs claim that an “Internet access device” is different from an “access browser device.” According to Plaintiffs,

the Abstract and Summary of the Invention “simply recite ‘wherein upon accessing a predetermined address by the Internet browser’ which does not require user input because the browser accesses a predetermined address.” (Doc. 58 at 13.) Defendants maintain that the display and input mechanism are necessary for a user to input a URL, while Plaintiffs maintain that this construction “does nothing more than import limitations from the specification,” which is improper. (Doc. 66 at 8); *see Liebel-Flarsheim Co. v. Medrad, Inc.*, 358 F.3d 898, 913 (Fed. Cir. 2004) (“[I]t is improper to read limitations from a preferred embodiment described in the specification—even if it is the only embodiment—into the claims”).

The Court agrees with Plaintiffs that “running an access browser” is redundant considering the claim language. Claim 57 itself does not expressly require a display and input mechanism, and Defendants do not point to a clear disavowal of claim scope by the patentee that would limit the term “access browser device” beyond its plain and ordinary meaning. Thus, the Court declines to construe “access browser device” to require a display and input mechanism. *See Liebel-Flarsheim Co.*, 358 F.3d at 906 (internal quotation marks omitted) (“Even when the specification describes only a single embodiment, the claims of the patent will not be read restrictively unless the patentee has demonstrated a clear intention to limit the claim scope using words or expressions of manifest exclusion or restriction.”). Accordingly, the Court’s construction of these terms is their plain and ordinary meaning.

F. Input of Uniform Resource Locators (URL)/User-Input of a Uniform Resource Locator (URL)/User-Input, Using the User Interface, of a Uniform Resource Locator (URL)

Term	Patent/Claims	Plaintiffs’ Construction	Defendants’ Construction	Court’s Construction
“input of Uniform Resource	‘526 Pat: Cl. 1, 57, 58, 59, 62	No construction necessary / plain	“input of a URL by a user into the system”	See below.

Locators (URL)”	‘097 Pat: Cl. 1, 7, 19, 23	and ordinary meaning		
“user-input of a Uniform Resource Locator (URL)”				
“user-input, using the user interface, of a Uniform Resource Locator (URL)”				

The central disagreement between parties appears to be over the meaning of the word “input.” Defendants assert that “the claimed actions are kicked off when the user puts the URL into the system, rather than merely selecting a URL the system presents to him or her.” (Doc. 64 at 18.) Defendants cite to parts of the specification that contemplate a user entering the URL. *See* ‘526 Patent at 7:40-44 (“A remote user . . . uses a web browser on an Internet access device to view the private HTML pages . . . by entering a URL associated with the HTML page they wish to access.”).

Plaintiffs dispute that this is the plain and ordinary meaning of input and contend that Defendants are attempting to inject a limitation requiring a user to input a URL. Plaintiffs claim that “user entry of the URL is only one type of entry covered by the claims—any other type of selection or entry is also covered.” (Doc. 66 at 10.) Plaintiffs point to the Abstract and first paragraph of the Summary of the Invention, “which simply recites ‘wherein upon accessing a

predetermined address by the Internet browser.’ Here, the patent disclosure makes clear that the browser can access a predetermined address on its own.” (Doc. 58 at 14); *see* ‘526 at 2:42.

Defendants argue that the prosecution history precludes Plaintiffs from claiming this broad scope. The original claims stated that the process was initiated by “user-input or selection” of a URL. The examiner issued a rejection under 35 U.S.C § 112, stating that “nowhere does the specification provide explicit, implicit, or inherent support for the limitation[.]” (Doc. 65-3 at 11.) Specifically, the examiners explained that “with respect to limitations 2, 3, 7, 10, and 12, **the specification does not indicate that the user ‘selects’ a URL**, nor does the specification indicate that the URL corresponds to a predetermined address on the extranet (or other corresponding external network).” (*Id.* at 12) (emphasis added). The patentee overcame this rejection by removing “selection” of a URL from the scope of the claim. (*See* claim amendment at Doc. 65-2 at 3.) In its remarks about the amendment during prosecution, the patentee wrote that:

The entry of a URL is a type of selection. A definition of select is to choose or single out. By entering a URL, the user has indeed selected that URL. Notwithstanding the above, in order to facilitate matters, the word “selection” has been removed from the claims because its removal does not change the scope of the claims in any case. Indeed, “input” or “entry” of a URL includes any form of user entry or selection of a URL.

(Doc. 65-2 at 22.) Plaintiffs argue that these remarks affirm its position that any type of selection or entry is covered by the claims. (Doc. 66 at 10.) Defendants respond that Plaintiffs’ attempt to mitigate the effect of its claim amendment “has no legal effect. The examiner never acknowledged this argument.” (Doc. 68 at 3.)

The Court finds this sentence from the patentee’s remarks clarifying of the issue: “By entering a URL, the user has indeed selected that URL.” (Doc. 65-2 at 22.) Here, the patentee made clear that the user is indeed *entering* a URL, and by *entering* that URL, the user is selecting *that* URL out the infinite number of other URLs it could potentially enter. This remark indicates to the

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Court that the patentee was not using “select” to mean that the user selects a URL presented to them by the system—but rather, that the user decides which URL to enter, thereby “selecting” that URL. The Court finds that this is an instance in which the prosecution history helps “inform the meaning of the claim language by demonstrating how the inventor understood the invention and whether the inventor limited the invention in the course of prosecution, making the claim scope narrower than it would otherwise be.” *Phillips*, 415 F.3d at 1317.

Based on this prosecution history, Defendants argue that amendment-based estoppel applies: “Prosecution history estoppel can occur in two ways: ‘either (1) by making a narrowing amendment to the claim (amendment-based estoppel) or (2) by surrendering claim scope through argument to the patent examiner (argument-based estoppel).’” *Amgen Inc. v. Coherus BioSciences Inc.*, 931 F.3d 1154, 1159 (Fed. Cir. 2019) (quoting *Conoco, Inc. v. Energy & Envtl. Int’l, L.C.*, 460 F.3d 1349, 1363 (Fed. Cir. 2006)). The Court finds that amendment-based estoppel does apply here, meaning that by removing the word “selection” to overcome a claim rejection, the patentee relinquished a potential interpretation of “input” that includes “selecting a URL that the system presents to the user” and thereby narrowed the scope of the claims.

The extrinsic evidence of dictionary definitions lends further support to this conclusion: the plain meaning of “input” does not encompass the “selecting” of something already in the system. (Doc. 68 at 3.) Rather, according to Merriam-Webster’s Collegiate Dictionary, “input” means “something that is put in” or “information fed into a data processing system or computer.” (Doc. 68-3 at 5.) And the Microsoft Computer Dictionary defines “input” as “to enter something into a computer for processing.” (Doc. 68-4 at 4); *see also Phillips*, 415 F.3d at 1318 (“Because dictionaries, and especially technical dictionaries, endeavor to collect the accepted meanings of terms used in various fields of science and technology, those resources have been properly

recognized as among the many tools that can assist the court in determining the meaning of particular terminology to those of skill in the art of the invention.”).

The Court next considers Plaintiffs’ argument that “the second and third claim terms at issue themselves include the phrase ‘user-input,’ but the first claim term does not. Thus, there is no reason to further define that term to include ‘input of a URL by a user into the system,’ when the various claims themselves distinguish between user-input and input generally.” (Doc. 58 at 14.) This Court finds this persuasive: If the construction of “input” necessarily included “by the user,” the inclusion of “user-input” in some claims would be redundant or inconsistent with the claims that do not mention “user-input.”

For the claim terms “User-Input, Using the User Interface, of a Uniform Resource Locator (URL),” and “User-Input of a Uniform Resource Locator (URL),” Plaintiffs argue that “Defendants do not explain how they are any different than ‘input of a URL by a user.’ That is simply rearranging words for no reason.” (Doc. 66 at 9.) The Court agrees with Plaintiffs that “input of a URL by a user” is an unnecessary rearrangement of “user-input” of a URL that does not serve to clarify the meaning of the terms or resolve the parties’ dispute.

Lastly, Plaintiffs argue that the words “into the system” in Defendants’ proposal are confusing because each of the asserted claims is a “system” claim. “Defendants’ proposal adds ambiguity as to where in the system—and all of its myriad parts—that the user is supposed to input the URL.” (Doc. 66 at 9.) Defendants do not provide a clear argument or explanation for its inclusion of the words “into the system,” so the Court concurs with Plaintiffs that this phrase should be struck from the construction.

Taken together, the Court finds that the three terms at issue cover the input (meaning “entering” or “putting in”) of a URL and do not cover other forms of selecting from URLs

presented by the system. Additionally, the second and third claim terms (“User-Input, Using the User Interface, of a Uniform Resource Locator (URL)” and “User-Input of a Uniform Resource Locator (URL)”) cover input of a URL *by a user*. The first claim term (“input of Uniform Resource Locators (URL)”) does not specify input by a user. For that term, the Court declines to limit “input” to input only by a user. To summarize and conclude, the Court construes “input” of a URL to mean to “enter or put in” a URL, which excludes the “selection” of a URL already in the system.

G. Responsive to User-input of a URL in Accordance with Which Said User Access Browser Accesses a Predetermined Location on Said First Network to Which Address the URL Corresponds/Responsive to User-input of a Uniform Resource Locator (URL) in Accordance with Which Said Internet Browser Accesses a Predetermined Address on Said Extranet to Which Address the URL Corresponds/Responsive to User-input, Using the User Interface of a Uniform Resource Locator (URL) in Accordance with Which Said Mobile Device Accesses a Predetermined Address on Said Extranet to Which Address the URL Corresponds

Term	Patent/Claims	Plaintiffs’ Construction	Defendants’ Construction	Court’s Construction
“responsive to user-input of a URL in accordance with which said user access browser accesses a predetermined location on said first network to which address the URL corresponds” “responsive to user-input of a Uniform Resource Locator (URL) in accordance with	‘526 Pat: Cl. 1, 57, 58, 59, 62	No construction necessary / plain and ordinary meaning	“responsive to user-input of a Uniform Resource Locator (URL) in accordance with which said user access browser directly accesses a predetermined address on said extranet to which address the URL corresponds”	No construction necessary / plain and ordinary meaning

<p>which said Internet browser accesses a predetermined address on said extranet to which address the URL corresponds”</p> <p>“responsive to user-input, using the user interface, of a Uniform Resource Locator (URL) in accordance with which said mobile device accesses a predetermined address on said extranet to which address the URL corresponds”</p>				
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During the *Markman* hearing, Defendants dropped their argument over “extranet.” The remaining dispute is whether access must be “direct.” Plaintiffs argue that Defendants’ construction “excludes embodiments and, simultaneously, adds limitations from the specification and redundant claim language.” (Doc. 58 at 16.) Plaintiffs claim that the specifications state that the browser can access a predetermined address/location as the result of a redirect. Plaintiffs cite to the following language in the specification:

The process of accessing the URL dedicated to the monitoring and control of the user premises initiates a sequence of events that culminate in connection of the user premises network 26 to the provider network 17. A *service node 20 within the provider network intercepts the access to the URL* dedicated to the monitoring and control of the user premises, and *uses the premises connection data associated with the user to instruct a communications server 21 to initiate a connection to the gateway 22 at the user premises.*

'526 Patent at 7:56-65 (emphasis added). The specification also states, “if successful user HTTP connection is redirected to a remote HTTP service on gateway,” which Plaintiffs argue “establishes that this claim term is not limited to ‘direct access’ of a predetermined address.” (Doc. 58 at 16.); *see* '526 Patent at 9:20-21, 9:42-43, 10:1-2, and 10:27-28.

Defendants respond that its proposed construction “does not depend on the absence of *any* intervening components.” (Doc. 64 at 21.) Rather, they explain that “in the claims, when the ‘user access browser’ ‘accesses a predetermined address,’ that access is ‘direct’ in the sense that it is the user input of the address that causes the browser to access the predetermined address. The user is not accessing something else. Whether the traffic for this URL passes through a gateway or is ‘redirected,’ these steps are simply byproducts of the way that the internet works.” (Doc. 64 at 21-22.)

The Court finds that Defendants’ explanation of what they mean by “directly” contradicts the ordinary meaning of the term, particularly since Defendants acknowledge that there may be “interim steps.” (Doc. 64 at 22.) As Plaintiffs note, “Defendants attempt to explain that ‘directly’ does not really mean ‘directly.’” (Doc. 66 at 11.) Moreover, inclusion of the word “directly” would exclude “embodiments included in the patent specification, including traffic that passes through a gateway or is redirected.” (Doc. 66 at 11) (internal quotation marks omitted.) For these reasons, the Court construes this term according to its plain and ordinary meaning.

H. Authorization Data/Authentication Data

Term	Patent/Claims	Plaintiffs’ Construction	Defendants’ Construction	Court’s Construction
“authorization data”	'526 Pat: Cl. 1, 57, 58, 59, 62	No construction necessary / plain and ordinary meaning	“data sufficient to determine if a user has permission to access the predetermined	No construction necessary / plain and

“authentication data”	‘097 Pat: Cl. 1, 7, 19, 23		address requested.”	ordinary meaning
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Plaintiffs contend that the claim language of the asserted patents provides the functionality of the “authorization data” and “authentication data.” (Doc. 58 at 18.) For “authorization data” in the ‘526 Patent, the claims state that the “authorization data indicates authority to at least one of control and monitor.” *See, e.g.*, ‘526 Patent at 12:50-51. Similarly, for “authentication data” in the ‘927 Patent, Plaintiffs assert that the “claim language provides the context for the claim term, eliminating any need for further construction.” (Doc. 58 at 19.) “For example, Claim 1 uses the term ‘authentication data’ numerous times in similar contexts to describe authority to access.” (*Id.*); *see, e.g.*, ‘927 Patent at 13:6-8 (“authentication data indicating authority to access the at least one networked component of the local network”). As the Federal Circuit has stated, “the claims themselves provide substantial guidance as to the meaning of particular claim terms. . . . [T]he context in which a term is used in the asserted claim can be highly instructive.” *Phillips*, 415 F.3d at 1314.

Plaintiffs also argue that Defendants’ proposal of “the predetermined address requested” adds a new functionality and concept for the authentication data that is not part of the claims or the specification. (Doc. 58 at 19.) For instance, in the ‘526 Patent, Plaintiffs assert that Claim 59 “already claims ‘authorization data indicates authority to at least one of control and monitor’ and does not need further limitations to narrow that description by including ‘access the predetermined address.’” (Doc. 66 at 11.)

Defendants concede that “the language around the term in the claim provides some indication as to its meaning,” but contend that “clarification is necessary” and “the specification provides the necessary context for this term.” (Doc. 64 at 22-23.) Defendants cite to parts of the

specification and Summary of the Invention where authentication data is used to determine if a user has permission to access the predetermined address requested. (Doc. 64 at 23.) Plaintiffs respond that Defendants are improperly injecting limitations from the specifications without justification. (Doc. 66 at 11.)

While district courts are not obligated to construe terms with plain and ordinary meanings to a POSITA, Plaintiffs here do not contend that the terms “authorization data” and “authentication data” have a well understood meaning to a POSITA. Rather, Plaintiffs’ chief argument seems to be that “the surrounding claim language provides the proper scope of the claims.” (Doc. 66 at 11.) The Federal Circuit has held that when the “claim itself provides considerable information about its meaning,” such that “one of skill in this art would agree that the claim defines [the] term adequately without additional limitations,” it is improper for a district court to add “limitations not found in the specific language of the claim.” *Honeywell Int’l Inc. v. Universal Avionics Sys. Corp.*, 488 F.3d 982, 993 (Fed. Cir. 2007). The Court finds that the claims themselves provide sufficient information about the meaning of the terms at issue, such that further construction by the Court is not necessary.

V. CONCLUSION

The disputed terms in the patents-in-suit are construed as set forth in this Order.

IT IS SO ORDERED.

SIGNED at Houston, Texas on this the 20th of November, 2023.

A handwritten signature in black ink, appearing to read 'Keith P. Ellison', written over a horizontal line.

KEITH P. ELLISON
UNITED STATES DISTRICT JUDGE